Kentucky Healthy Homes and Lead Poisoning Prevention Program

Elevated Blood Lead Level Investigation

Risk Assessment Report

Project Site:

Street
City, State Zip
County

Date

Prepared By:

Risk Assessor Name RA 48#
Employer
Street
City, State Zip
Phone:
Fax:
Email:

Signature:_____

Lead Risk Assessment Report Form

Date of Assessment:

Patient Name:
Patient Birth Date: ____/____/_____

Address:
City, Zip:
Guardian(s):
Phone:
Clinical Information:

Date	Type : Ven/Cap	Location	Result

Date of Construction:

Name of Owner:
Address:
City, Zip:
Phone:
GPS Coordinates:
Latitude:
Longitude:

Ownership: __Private __Public Rental __Private Rental
__Section 8 __Unknown
Date First Occupied:
Date Last Occupied:

Last Renovation Started:
Last Renovation Completed:
Type of Renovation:

Name of Risk Assessor:
Certification Number:
Risk Assessor Employer (District/LHD):
Address:
City, State, Zip:
Phone:

Name of Lab:
Address:
City, State, Zip:
Phone #:
Fax #:

Results of Visual Inspection:

Dwelling Type: __Attached __Daycare __Multiunit __School __Other

Exterior:

Interior:

Testing Methods / Testing Device / and Sampling Procedures for Paint Analysis:
.

Serial # of radioactive materials licenses of the XRF (if used):
N/A

Calibration reading (if taken):
N/A

Specific Location and Results of Each Component Tested:

a.) **Paint:**

b.) **Dust:**

c.) **Soil:**

d.) **Water:**

e.) **Other potential sources of exposure:**

History of Previous Inspection of Analysis:

Hazard Location/Type/Severity:

Field Sample #	Lab Sample #	Sample Type	Location	Description	Results

Guidelines for Lead Hazards in Kentucky:

Dust: Floors- 40ug/ft² **Paint:** 0.5% by weight

Interior Window Sills- 250ug/ft² **Soil:** Play areas- 400ug/g

Interior Window Troughs- 400ug/ft² Perimeter/Yard- 1200ug/g

Other Sampling Results: See History of Previous Inspection. (Appendix 2)

Highest XRF: **Highest Dust Sill:**

Highest Dust Floor: **Highest Dust Trough:**

Description of:

A) Location, Type and Severity of Identified Hazards: Kentucky Department for Public Health Laboratory results show that dust samples _____ were in excess of state lead standards for lead content. These high levels of lead can be associated with deteriorated lead paint located on _____

B) **Other Potential Hazards:** All hazards are addressed in the above paragraph. Or fill in with other potential hazards.

C) **Interim Controls or Abatement for Each Hazard:** In accordance with Kentucky Revised Statute 211.905, all hazards identified in this report **must** be removed, replaced or securely/permanently covered within 60 days of this notice and in a manner approved by the Kentucky Cabinet for Health and Family Services' Environmental Lead Program and by a licensed and certified lead abatement company and in accordance with all applicable state and federal regulations. Based on laboratory analysis completed for samples taken at this residence, _____are to be addressed by a certified contractor. Items with a similar paint history and not specifically mentioned in this report should

also be considered during the abatement project in order to prevent any future exposures. The abatement efforts must address all identified hazards and shall include thorough clearance sampling and laboratory analysis prior to the re-occupancy of the residence. If lead hazards are not addressed within 60 days, upon vacancy of the unit the property will be posted as unfit for habitation by persons 72 months of age and under. Enforcement actions will be sought through the local court system.

*******Pick only the options that apply***

to the hazards found**(please remove this note prior to printing)***

Special Pre-cleaning – Whole House

Lead Dust and Debris Present on the Property Before Work Begins.	
Special cleaning *preceding* lead-based paint hazard control activities. Before any lead-based paint hazard control activities, the site and structure should be pre-cleaned following the cleaning protocols in the *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing,* published by the U.S. Department of Housing and Urban Development (June 1995, Revised 1997.) Some of the required steps include removing large debris and paint chips followed by HEPA vacuuming of all horizontal surfaces (floors, windowsills, troughs, etc.) The cleaning protocols in the *HUD Guidelines* will assist the contractor in doing a preliminary cleaning and will improve the chances of passing the clearance examinations that are required after routine maintenance work, rehabilitation, and lead-based paint hazard control in pre-1978 properties.	
Cleaning, per square foot	**$1.10 – $2.00/s.f.**

Exterior Siding And Trim Lead-Based Paint Hazard Control Options

Deteriorated Lead-Based Paint on Exterior Siding and Trim Components.	
ABATEMENT ACTIVITIES: There are three options for abatement of exterior siding: 1) enclosure of all exterior siding components with vinyl or metal siding and the covering of all trim components with pre-finished aluminum wrap materials, 2) removal and replacement of lead-based paint painted exterior siding and/or trim components, 3) use of an approved encapsulant system covering all exterior siding and trim surfaces. If encapsulation is used, a test patch must be made up prior to installation. These methods usually generate small to medium amounts of lead-contaminated dust and will permanently cover or replace the deteriorated surfaces, eliminating most future hazards. Even though the potential for lead dust contamination is generally less with these methods of lead-based paint hazard control, special attention to work practices will be needed to limit dust generation.	
Siding enclosure, per square foot, vinyl materials	**$3.45 – $4.25/s.f.**
Trim enclosure, per linear foot, aluminum materials	**$3.10 – $4.05/l.f.**
Removal and replacement of lead-based-paint-coated components, per square foot	**$5.22 – $6.40/s.f.**
Application of approved encapsulants, per square foot	**$2.20 – $3.40/s.f.**

Interior Trim Lead-Based Paint Hazard Control Options

Deteriorated Lead-Based Paint on Interior Trim Components.	
ABATEMENT: There are three options for abatement of interior trim components: 1) Onsite or offsite paint removal 2) Use of encapsulant paint system 3) Component removal and replacement. If encapsulation is used, a test patch must be made up prior to installation. These methods may generate varying degrees of lead dust, depending on the specific activities that are performed, so special attention to work practices will be needed to limit dust generation during the work. Each of the three abatement options permanently removes or covers the deteriorated painted surfaces. However, if encapsulation or enclosure is used, lead-based paint remains on the property, so ongoing lead-based paint maintenance and reevaluation must be performed.	
Paint removal, per linear foot	**$2.05 – $3.95/l.f.**
Application of approved encapsulants, per square foot	**$0.95 – $3.25/s.f.**
Removal and replacement of lead-based paint-coated components, per linear foot	**$2.25 – $4.90/l.f.**

Exterior Window Lead-Based Paint Hazard Control Options

Deteriorated Lead-Based Paint on Exterior Window Components	
ABATEMENT ACTIVITIES: There are several options for abatement of deteriorated window components: 1) removal and replacement of the window sashes with the enclosure or paint stabilization of the exterior trim surfaces. This is economical and generates the least amount of lead dust of the options available. 2) removal of the window sashes, frame, and trim and the installation of a new window with new interior and exterior trim. This option must be performed properly to avoid dust generation and house or neighborhood lead contamination. Vinyl, aluminum, or wood replacement style windows can be used. Note: Lead-based paint hazard control activities on the trim components should be performed prior to the installation of the new replacement window dwelling units.	
Removal and replacement of the existing windows with vinyl replacement windows; costs reflect all labor and containment costs –standard house double-hung or casement window	**$300 – $550 each**
–wood replacement windows	**$325 – $650 each**
–aluminum-clad wood replacement windows	**$390 – $725 each**
Casing, jamb, trough, apron stabilization, per linear foot	**$1.60 – $2.25/l.f.**
Casing, jamb, trough, apron wrap, per linear foot	**$3.10 – $4.20/l.f.**
Removal and replacement of the existing windows with new wood windows including interior and exterior trim.	**$450 – $700 each**

Interior Window Lead-Based Paint Hazard Control Options

Deteriorated Paint on the Interior Window Components	
ABATEMENT OPTIONS: The removal and replacement of the entire window including the jamb, stops, casing, header, sill, and apron is the abatement option for interior windows. This method has the potential to create higher volumes of dust than stabilization, but permanently eliminates lead-based paint hazards in this area.	
Removal and replacement of the existing windows with vinyl replacement windows; costs reflect all labor costs –standard house double-hung or casement window	**$300 – $550 each**
–wood replacement windows	**$325 – $650 each**
–aluminum clad wood replacement windows	**$390 – $725 each**

Exterior Door And Trim Lead-Based Paint Hazard Control Options

Deteriorated Lead-Based Paint on the Exterior Door and Door Trim Components	
ABATEMENT ACTIVITIES: There are two abatement options: 1) offsite stripping of the door and rehanging or replacing the doorframe and door leaf. Offsite stripping has the potential to create a low volume of lead-contaminated dust. 2) replacing the door by removing the entire door and all framing, and the installation of a new pre-hung door dwelling unit. This activity has the potential to create a high volume of lead-contaminated dust. If removal of the door and installation of a new door is selected, containment must be in place to protect residents and workers for the entire duration of the work and extra care must be taken by the contractor to limit and contain the dust generated.	
Offsite stripping of door and rehanging original door	**$150 – $175 each**
Removal and installation of a new door leaf	**$150 – $285 each**
Removal and replacement of door and doorframe	**$325 – $550 each**

Special Cleaning For Floors With Lead-Contaminated Dust

HAZARD TYPE #7:	**Lead-Based Paint Dust Hazard on Floor Surfaces**	
	CARPETED FLOORS	
a)	**INTERIM CONTROLS:** The lead-based paint hazard created by lead dust on interior carpeted floors is addressed by special steam cleaning of the affected areas. Minimum specifications include beater HEPA vacuuming, professional steam cleaning, and final HEPA vacuuming. Note: Depending on the amount of carpet contamination that is present, it should be noted that dust levels after cleaning may not be low enough to meet HUD clearance standards.	
	Carpet cleaning using truck-mounted equipment	**$65 – $110/room**
b)	**ABATEMENT ACTIVITIES:** Removal and replacement of the carpet is the only option to meet HUD clearance standards for dust levels following lead-based paint hazard control work. The carpet must be wetted and cut into manageable sections before being rolled and wrapped in plastic sheeting for removal. Subfloor must be HEPA-vacuumed and wet-mopped before installation of new material. These activities have the potential to create a high volume of lead dust. Carpet removal has the potential to create large amounts of dust, so containment must be in place during the duration of the work to protect residents and workers. Extra care must be taken by the contractor to limit and contain the dust generated.	
	Disposal of carpet, per square foot	**$0.75 - $1.55/s.f.**
	Installation of new carpet, per square yard	**$21 – $30/s.y.**
	BARE FLOORS	
c)	The dust-lead hazard on interior bare floors is addressed by special wet cleaning of the affected areas. Minimum specifications include HEPA vacuuming, wet wiping, and final HEPA vacuuming.	
	Cleaning, per square foot	**$0.20 – $0.40/s.f.**

Special Post Cleaning Activities

Potential of Residual Lead Dust or Debris Following Lead Hazard Control Activities.	
Special cleaning *following* lead-based paint hazard control activities. Immediately after any lead-based paint hazard control activities, the work area (or unit, as applicable) must be thoroughly cleaned following the cleaning protocols in the *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*, published by the U.S. Department of Housing and Urban Development (June 1995, Revised 1997). As a minimum, proper tear-down and disposal of all containment plastic, HEPA vacuuming of all horizontal surfaces (floors, windowsills, troughs, etc.), detergent scrubbing of all surfaces, and final HEPA-vacuuming are required. The cleaning protocols in the *HUD Guidelines* and the lead-safe work practices training courses assist the contractor with cleanup and will improve the chances of passing the clearance examinations (required after routine maintenance work, rehabilitation, and lead-based paint hazard control in pre-1978 properties.)	
Cleaning, per square foot	**$2.00 – $3.15/s.f.**

Soil Lead-Based Paint Hazard Control Options

Lead-Contaminated Soil	
ABATEMENT OPTIONS: There are two abatement options to address soil-lead hazards: 1) removal and replacement of the soil. Following soil replacement activities, a good and viable turf or a mulch bed must also be established. If this is selected, additional soil sampling should be performed to assess the extent and depth of the contamination and determine the full extent of the area that will require hazard control. Additional testing should also be done to determine the lead content of the new soil that is brought in. 2) covering the soil (encapsulation) with concrete or asphalt, eliminating the possibility of future contact with the contaminated soil.	
Soil replacement at a depth of 4 inches, per square yard	**$22 – $43/s.y.**
Concrete or asphalt installation including preparation, per square foot	**$3.10 – 5.50/s.f.**

Additional Notes:

1) When maintenance or other work impacts a material, surface coating, substrate, component, or surface and its lead content is not known, those areas and/or items must be presumed to be lead-based paint.

2) During the period of lead hazard control activities, daily clean-up of the work areas should be performed. Accumulation of debris should be prevented. All trash must be disposed of promptly and properly. At the end of each day, time must be reserved for a thorough cleaning of the work area.

The cost above includes labor, worker protection, and site containment and clean up. These are only very rough estimates that may be impacted by multiple factors, such as time of year; time allotted for completion and replacement material expenses.

It is recommended that property owners contact local certified abatement firms to request price quotes for correcting the above mentioned hazards. A list of all currently certified lead firms can be located at www.ky.gov/chfs/dph/lead.htm.

D) **Maintenance or Monitoring Schedule of Encapsulant or Enclosure:** In the event that an encapsulant or enclosure is used to address the hazards identified in this report, the owner of the property or those employed by him should follow the manufacturer's recommended maintenance schedule on the specific encapsulant or enclosure used. The property should be inspected every six months to determine the status of the encapsulant or enclosure and to determine their effectiveness.

Summary: At this time the KY Childhood Lead Poisoning Prevention Program recommends that the owner initiate the remediation process by contacting and receiving cost estimates to remediate identified hazards. Questions regarding the lead abatement/remediation process should be directed to the Environmental Lead Program within the Kentucky Department for Public Health's Public Safety Branch at (502)564-4537.

The family residing at the residence should secure temporary housing and accommodations during all abatement activities unless the abatement company contracted by the owner provides a

comprehensive containment and occupant protection plan approved by the cabinet to ensure the family will have no exposure to lead dust as a result of the abatement. Any and all pets should be removed at this time as well. All pets should be washed daily and the family should clean the house following the procedure on the *Routine Cleaning as an Interim Control for Lead Dust* pamphlet.

In accordance with KRS 211.905, the residents of ***Fill in address*** shall be released from their rental agreement without prejudice to the occupant should they so choose. In the event that the building is vacated, and in accordance with 902 KAR 4:090 the property shall remain vacant until identified hazards are addressed in accordance with this report.

Recommendations: In order to protect the health and well being of the children residing at the residence, the KY CLPP recommends that a regular cleaning be done in all areas of the home to reduce the amount of dust. These cleaning procedures are outlined in the *Routine Cleaning as an Interim Control for Lead Dust* pamphlet. In addition, it is recommended that the parents/caregivers of the children ensure that all hands are kept free of dust. Parents are strongly recommended to wash children's hands many times a day, discourage them from placing hands or anything that has come in contact with soil, dust or paint surfaces. Do not allow children to play outside unsupervised, and when outside, children should be discouraged from playing in soil or contacting loose or flaking paint or loose paint chips. Removing shoes of residents at door and encouraging guests to do so also may help reduce the amount of high lead dust that may be carried indoors on shoes. In aims of reducing the effects of lead, a nutritious diet with adequate iron and calcium will help prevent the absorption of lead into the child's blood. Some foods high in iron are beef, pork, deer, clams, shrimp, tuna, iron-rich cereals, cooked dried beans and peas. Some foods high in calcium are milk, yogurt, cheese, canned salmon and leafy greens like collards, spinach, kale and broccoli. Please visit the KY Childhood Lead Poisoning Prevention Program's website for additional health education materials at ***www.putthelidonlead.org***

Requirements: __Per Kentucky Revised Statute 211.905, the identified lead hazards noted above must be removed, replaced, or securely and permanently covered within a time period not to exceed sixty (60) days and in a manner prescribed by the Cabinet. These activities must be conducted by persons certified by the Environmental Lead Program, Kentucky Department for Public Health. Within sixty (60) days of receiving this report, the property owner must submit documentation to the author that a certified company has been contracted for lead hazard corrections. This documentation should include a brief description of the activities planned and a timeline to accomplish the removal, replacement, or covering of the components. In addition, per 902 of Kentucky Administrative Regulation 4:090, Section 4(3), if the occupants at this address vacate after this corrective order has been issued, the dwelling, dwelling unit, or premises may not be re-occupied until the corrective actions have been accomplished.

Appendix 1

Drawings

Appendix 2

Tables

Dust Wipe Sample Results

Sample No.	Room	Description	Results (µg/ft²)

Kentucky's allowable levels for lead in dust are -

Floors	**–**	**40 µg/ft²**
Interior window sills	**–**	**250 µg/ft²**
Interior window troughs	**–**	**400 µg/ft²**
Exterior Components	**-**	**800 µg/ft²**

Paint Chip Sample Results

Sample No.	Room	Description	Results In %

Kentucky's allowable level for lead in paint is-

Paint Chips - 0.5% by weight or ≥ 1.0 mg/cm²

Soil Sample Results

Sample No.	Room	Description	Results (µg/ft²)

Kentucky's allowable levels for lead in soil are:

Play Area - 400 µg/L

Bare Soil in Yard - 1200 µg/L

Appendix 3

Photographs